Centex Homes – Sterling Homes Development
Response to Supplemental Sampling Plan Public Comments

Comments from Ms. Jeannie Chari, 7047 Darnoch Way, West Hills, CA 91307

Comment 1a:
It needs to be made clear how "background radiation" is determined.

***Response**: Preliminary data collected to determine background levels included the following:*

1) *Alpha/Gamma survey of the entire property using direct reading instruments.*
2) *Collection of discrete soil samples for gross alpha and gamma radiation analyses*
3) *Collection of discrete soil samples for isotope specific analysis of Sr-90, Plutonium-238 and Cs-137.*

The results obtained from the survey will be statistically evaluated and compared to existing off-site radiological data collected as part of the SSFL off-site sampling program. Off-site soil samples were collected from parks and canyons located between 1.5- and 12-miles from the Centex site.

Comment 1b:
How does the "background radiation" at the Centex development site compare to the background radiation 50 miles from here?

***Response:** Background radiation is dependent upon the geology and background locations should be as similar as possible to the geology associated with the Centex site. The geology 50-miles away will likely not be similar to the Centex area and may provide different levels of naturally occurring substances. Consequently, as discussed in Response to Comment 1a, Centex site radiological data will be compared to existing background data collected from similar locations 1.5- to 12-miles from the Centex site.*

Comment 1c:
At the meeting it was indicated that a certain number of soil samples were taken for testing of specific radioisotopes. We need to see a map of those samples.

***Response:** The map indicating locations of soil samples collected to determine background levels and the analytical results will be posted on the DTSC website.*

Comment 1d:
Additional samples need to be taken looking at the potential for radioactive contamination. These additional samples need to be taken at several feet down, not just at the surface as any superficial contamination has had plenty of time to migrate downward. (Samples should be taken to a depth at least as great as is expected to be reached during grading or other activities involved in development).

Response**:** *The need for additional step-out and/or step-down sampling for specific radionuclides in soil will be determined following the evaluation of the preliminary radiological survey results.*

Comment 1e:
The public needs to see the results of the radioactive sampling plan that has already been completed. Was this small sampling the recommendation of the EPA or is that recommendation still to come?

Response: *The Radiological Survey and Sampling Protocol to establish background levels will be posted on the DTSC website. The data generated will be compared to local background radiation information, as well as data generated by the Nuclear Regulatory Commission, United States Environmental Protection Agency, and Department of Energy*.**.**

Comment 1f:
The public needs to see a plan of protection while the soil is being disturbed during development to protect neighboring communities from any potential contamination.

Response: *Development of the site will not begin until DTSC has determined that property is safe for sensitive land use. Once the site has been determined to be safe for residential development, there would be no impacts to the surrounding community from grading activities in terms of exposure to contaminants.*

Comment 1g:
If perchlorate showed up in the creek once, it can show up again. A comprehensive ongoing monitoring and response plan needs to be presented.

Response*: The Supplemental Sampling Plan proposes to conduct further investigation to delineate the extent of the perchlorate contamination. Deep borings to 30 feet below ground surface will be drilled to determine vertical extent of contamination and if encountered, water samples will be collected to determine if perchlorate is present in groundwater. In addition, a temporary groundwater well will be installed specifically to collect groundwater samples. Currently, surface water at the top of Dayton Canyon is monitored as part of the Boeing National Pollutant Discharge Elimination System permit (NPDES) administered by the Regional Water Quality Control Board (RWQCB). Monitoring at point HV-2 tests whether surface water contains contaminants as it leaves the Santa Susana Field Lab (SSFL) from the Happy Valley area. Collecting and testing water at HV-2 will continue after the site is developed. Recent and current analytical testing at HV-2 has indicated that the surface water leaving the Boeing site has low perchlorate concentrations. However, very high perchlorate concentrations have been detected in surface soil within lower Dayton Canyon Creek, so if the perchlorate was deposited by surface water flow, then it appears that a perchlorate source may exist downstream of HV-2. Consequently, it will be necessary to monitor surface water downstream of HV-2, in addition to the ongoing monitoring at HV-2. A surface water*

monitoring program will be considered for the site. Components of this program will be evaluated upon the completion of the Supplemental Sampling Plan investigation.

Comment 1h:
Somehow the hugely inherent conflict of interest that arises from the developer hiring it's own testing agency needs to be addressed.

Response: *It is not clear whether your comment refers to the analytical laboratory or the state agency providing oversight in this investigation. Centex Homes' environmental consultant has retained its own State of California Certified environmental laboratory to perform analysis of soil and groundwater samples. During the investigation, DTSC staff collects split water and soil samples, on a random basis, and submits those samples to its own Environmental Chemistry Laboratory for analysis.*

California Health & Safety Code, Section 25355.5(a)(1)(C) created the Voluntary Cleanup Program. This authorizes DTSC to enter into agreements with Proponents to oversee characterization and cleanup of a site. Under this Voluntary Cleanup Agreement (VCA) between DTSC & Centex, DTSC will oversee the site characterization and removal actions for areas of known contamination.

Comments from Mr. Dave Einhorn, 8422 Fable Avenue, West Hills (Comments dated 2-27-06 received via US Postal Service)

Comment 2a:
Comments on Page 1 of the Draft Supplemental Sampling Plan (DSSP): Background
What about the samples taken from the barrels with bullet holes?

Response**:** *Perchlorate was not detected in samples taken from these containers***.**

Comment 2b:
What about results of radioactive checks?

Response**:** *Direct reading instrumentation was used to screen these containers for radiation and radiation appears not to be above background or control samples.*

Comment 2c:
Were other checks made of debris found in Dayton Canyon possibly disposed of by Boeing SSFL over the years?

Response**:** *Direct reading instrumentation was used to screen the debris (concrete, metal, trash, etc.) found on the Centex property. Samples of the concrete were collected and analyzed for gross alpha and gamma radiation. Additional sampling may be conducted once radiation background levels are established***.**

Comment 2d:

Per Branch Chief Sara Amir, holes will be made for testing groundwater. I have learned there may be 2 aquifers on site. One at a lower level than the other. Both need to have samples taken.

Response**:** *The purpose of the deep borings is to investigate whether perchlorate has migrated to deeper soils near the Dayton Canyon Creek. Groundwater samples will be collected if groundwater is discovered in the process of drilling these borings. The purpose of installing the temporary groundwater well is to reach and collect groundwater samples near the Dayton Canyon Creek area. According to the DTSC – SSFL project team staff, at least 2 different aquifers have been identified within the SSFL. These aquifers do not appear to extend beyond the eastern property boundary of the SSFL and do not appear to be connected to the San Fernando Valley groundwater basin. According the to the Los Angeles County Department of Public Works Hydraulic/Water Conservation Division the eastern portion of the Centex property sits on the San Fernando Valley Groundwater Basin.*

Comment 2e:
Comments on Page 2 of the DSSP document: Scope of Work Section
What about testing the water running from the Centex Property by concrete lined channel?

Response**:** *Surface water samples have been collected at this location and perchlorate has not been detected in these samples.*

Comment 2f:
See remarks page one and Figure one; page 6, under Valley Circle, around the track that I live in at 8422 Fable and then through open dirt ditch across Orcutt Ranch?

Response**:** *The Dayton Canyon creek does not drain onto the Orcutt Ranch property. Dayton Canyon creek drains onto a concrete lined trapezoidal channel at Valley Circle Boulevard constructed in 1966. The channel then goes underground just before Roscoe Boulevard, south under March Avenue, turns east under Justice Street and daylights between Maestro Avenue and Sadring Avenue on the north Side of Justice Street. The dirt drainage on Orcutt Ranch primarily collects surface water from the property and drains into the flood control channel near the southeastern corner of the property.*

Comment 2g:
Comments on Page 3 of the DSSP document: Scope of Work Section
Research needs to be done by Contractor so the second lower aquifer can also be tested and sampled.

Response: *Please see response to comment # 2d*

COMMENTS RECEIVED DURING THE MARCH 7, 2006 MEETING

Comments from Mr. Dave Einhorn, 8422 Fable Avenue, West Hills

Comment 3a:
Health Survey conducted by UCLA & University of Michigan – cancer rates high in area.

***Response*:** *DTSC does not conduct health studies and does not evaluate specific health conditions of individuals. Our role as a Regulatory Agency is to 1) determine if a spill, release or disposal has occurred at a site; 2) characterize the nature and extent of contamination; 3) determine if the contamination poses a current or future risk to human health and the environment; and 4) clean-up the contamination so that it does not pose a future risk.*

Comment 3b:
DTSC needs to follow-up with Centex and the police department regarding the criminal investigation.

Response: *DTSC contacted Centex Homes to request this information. Per Centex Homes, a police report was filed with the Los Angeles Police Department - West Valley Division on September 24, 2005. A letter dated December 13, 2005 was sent to Los County Fire Department to report the incident.* ***(See attached letter).***

Comment 3c:
Request the Sacramento DTSC (SSFL) project team to sample the Chatsworth Reservoir for TCE.

Response: *DTSC –Glendale Office contacted the DTSC-SSFL project team to relay your request. Please note that in early 2004, Essentia Management Services, under contract with the Los Angeles Department of Water and Power, conducted an environmental assessment of the Chatsworth Reservoir. The scope of their project included analysis of soil and groundwater samples for Volatile Organic Compounds, including TCE, and perchlorate and other constituents. Perchlorate and TCE were not detected in soil or groundwater.*

Comment 3d:
Results of the sampling of the barrels with bullet holes found on the Centex property? Radionuclides?

***Response*:** *See response to comment 2a and 2b.*

Comment 3e:
Test water in the concrete channel toward Orcutt Park.

Response: *See response to comment 2e.*

Comment 3f:
Take samples from the dirt ditch in Orcutt Park (within the property fence of the park).

Response: *On March 6, 2006, DTSC staff collected twenty two (22) soils samples from 11 locations on the Orcutt Ranch (Park) drainage. Soil samples were analyzed using EPA Method 314.0. Analytical results detected perchlorate in two of the 22 samples analyzed. Perchlorate was detected in the 3 foot sample at locations OR-5-3.0 and OR-7-3.0 at concentrations of 130 µg/kg, and 200 µg/kg, respectively. (**See attached figure)***

Because of known interferences (false positives) by other salts with the EPA 314.0 analytical method for perchlorate analysis, samples OR-5-3.0 and OR-7-3.0 were further analyzed using Liquid Chromatography with Tandem Mass Spectrometry (LC/MS) with a detection limit of 0.2 parts per billion (ppb or µg/kg). Perchlorate in sample OR-7-3.0 was not detected and in OR-5-3.0 perchlorate was detected at 0.9 ppb.

Comment 3g:
Do testing at Justice Street Elementary School.

Response: *In response to the community concerns, DTSC collected twenty five (25) soil samples from 9 unpaved locations of the Justice Elementary School property on April 10th, 2006. **(See attached figure).** Preliminary analytical results indicate that perchlorate was not detected in any of the soil samples collected.*

Comments from Mr. Bert Smith

Comment 4a:
Is there any attempt to determine the source of the perchlorate?

Response: *The purpose of the investigation is to determine the extent of contamination and to determine the source of perchlorate.*

Comment 4b:
Why split Glendale/Centex and Sacramento/SSFL?

Response: *The Boeing/Santa Susana Field Laboratory facility is being investigated and managed by the Hazardous Waste Management Program (HWMP) which issues permits that are regulated by federal Resource Conservation and Recovery Act (RCRA) regulations. DTSC staff from HWMP working on this project are located throughout the state (Sacramento/Glendale/Cypress).*

The Centex Homes property is not a hazardous waste site and, therefore, is not regulated under the HWMP. The project was initially evaluated to determine if it was eligible for investigation under the Voluntary Cleanup Program (See response to Comment 1h) which is administered by Brownfield Reuse and Site Mitigation Cleanup Branch. The Voluntary Cleanup Program allows motivated parties who are able to fund the

investigation to cleanup properties under DTSC oversight. DTSC staff from different offices are assigned to work on such projects depending on available resources and personnel expertise.

Comment 4c:
Many studies of the "Rocketdyne" or SSFL problem are inconclusive because there isn't enough money to do a thorough investigation of the situation, why not?

Response: *The scope of this investigation is limited to the Centex Homes property and not on studies of the Rocketdyne or SSFL investigation.*

Comment 4d:
If the perchlorate washed away so easily, it suggests that the perchlorate contamination was recent, is this being investigated?

Response: *The purpose of the investigation is to determine the vertical and lateral extent of contamination and to determine the source of perchlorate. Please also see response to Comment 3b.*

Comment 4e:
Who is paying for the study, work and the remediation? What, if any, role is Boeing/Rocketdyne playing?

Response: *Centex Homes is paying for the investigation and remediation under the Voluntary Cleanup Agreement. Boeing/Rockedyne does not have a role in this investigation at this time.*

Comments from Mr. Andy Anderson, 24303 Woolsey Canyon Road, #37, West Hills

Comment 5:
The common and reasonable conclusion is: the closer to SSFL the higher the rate of "cancer deaths". So my question is: Is there a believable or significant impact on such deaths from "cleanup" and "selected testing"?

Response**:** *DTSC has not been involved with the health study and does not have the expertise to evaluate the study. For the Centex site, DTSC is currently 1) evaluating the nature and extent of perchlorate contamination detected in Dayton Creek; and 2) establishing regional background radiation levels which will be used to evaluate radiological site conditions on Centex. DTSC has not determined the source of perchlorate contamination. Health and safety precautions are always implemented by DTSC to ensure that the surrounding community is safe during any investigation or cleanup activities at any site in the State of California.*

Comments from Mr. Patrick Palombo, 24303 Woolsey Canyon Road, #134, West Hills

Comment 6:
As the contamination happened many years ago, it may be much deeper than 5'; however, is it at all possible with sustained heavy rains that it could raise upward again? In short, should soil samples be taken much deeper than 5'?

Response: *The Supplemental Sampling Plan proposes drilling four (4) soil borings to 30 feet below ground surface in or near the creek to determine if perchlorate has migrated to depths greater than 5 feet. In addition, soil samples will be collected from several areas in the creek as indicated in the plan. If perchlorate is detected in any of the soil samples collected from the 5-foot depth, additional investigation will be required until the vertical extent of contamination is delineated.*

Comments from Mr. Ron Hartmann, 5156 Quakertown Avenue, West Hills

Comment 7:
What steps are being taken to prevent future contamination on the Centex property from SSFL? It rains every year; how did it appear this year? Maybe it could have been dumped. What level is 6% perchlorate? How is it related to acceptable levels?

Response: *Please see response to Comment 1g. Six percent (6 %) perchlorate is equivalent to 62,000 milligrams per kilogram or 62,000,000 parts per billion (ppb). There is currently no established acceptable level for perchlorate in soil, however, DTSC has used 500 ppb as the acceptable residential level for perchlorate on a site in Santa Clarita, Ca. The action level for perchlorate in water is 6 parts per billion. Boeing/SSFL is required to collect surface water samples after each significant rain fall event.*

Comments from Ms. Helen Kerwin, 23385 Schoolcraft Street, West Hills, CA 91307

Comment 8:
Will you please address how perchlorate disrupts thyroid hormone production? Does this cause thyroid cancer?

Response: *Perchlorate blocks uptake of iodide by the thyroid gland that may lead to decreased synthesis of the thyroid hormones, T_3 and T_4. These thyroid hormones are critical determinants of growth and development in fetuses, infants and young children. Among the sensitive subpopulations identified are pregnant women and their fetuses, lactating women, and infant***s.**

Comment from Ms. Elizabeth Thompson

Comment 9:
Please test in Woolsey Canyon. I was just biopsied for thyroid cancer, the only cause is radiation. How can my area get tested?

Response: *The scope of the Supplemental Sampling Plan is limited to the Centex Homes-Sterling Homes Development property. DTSC-Glendale Staff have communicated your concerns to the DTSC-SSFL Project Team.*

Comment from Ms. Susan DeNardo

Comment 10:
Will you be testing Woolsey Canyon Road at Mountain View Mobilehome Park? I have graves disease and have lived there for 28 years. This disease is hyperthyroidism.

Response**:** *Please see response to Comment 9****.***

Comments from Ms. Sherri Diamond, West Hills

Comment 11a:
What about the school? Children are exposed to emissions from the soil.

Response: *Please see response to Comment 3g.*

Comment 11b:
We should be meeting once a month, not every 2 months. The website is not enough, must have frequent public meetings. We don't think you've involved the public in planning of sampling – not timely responses.

Response: *Your concern is acknowledged. More frequent public meetings are being planned to coincide with results of additional sampling****.***

Comments from Ms. Christina Walsh

Comment 12a:
All investigations need to be tied together.

Response: *DTSC-Staff have and will continue to maintain close communication with DTSC-SSFL Project team. DTSC-Glendale staff will provide an update on activities in West Hills sites at SSFL Work Group Meeting on April 26, 2006.*

Comment 12b:
Should be a real estate disclosure for future homebuyers on the Centex property

Response: *Per Mr. John Fitzpatrick of Centex Homes, the master disclosure for this Community is currently 29 Pages, but is not finalized yet. Disclosure documents are often updated as things change during the life of the project.*

One section was updated in May 2005 regarding the proximity of the Santa Susana Field Lab, and another section was added in September of 2005 regarding the detection of perchlorate. This last section won't be finalized until the current investigation is

completed. A draft version of the Disclosure in its current form has been provided to DTSC by Centex Homes as an example of this future document.

Comment 12c:
Sample at Justice Street Elementary School. Need to continue the investigation – if we don't find contamination at the locations we've identified, we need to keep going until we find it… don't just issue a "No Further Action"

Comment: *Please see response to Comment 11a*

Comments from Mr. Earl Brendlinger, 9349 Hartman Way West Hills, Ca 91304

Comment 13a:
When will development occur?

Response: *DTSC is responsible for ensuring that the property is safe for sensitive land use and development of the site will not begin until DTSC has made that determination.*

Comment 13b:
Will there be future monitoring at the site? Why does the perchlorate keep coming back?

Response: *Please see response to Comment 1g.*

Comments from Mr. Joel Feinblatt, 8455 Melba Avenue, West Hills, Ca 91304

Comment 14a:
What is the ½ life of the toxins? Radioactive, perchlorate, etc?

Response: *The half-life for the radiological elements of concern at the Centex Property are as follows:*

> *Cesium – 137: Half-life of 30 years and decays to non-radioactive, naturally occurring barium.*
>
> *Strontium – 90: Half-life of 29.1 years and decays to non-radioactive, naturally occurring zirconium.*
>
> *Plutonium has at least 15 different isotopes, all of which are radioactive. The most common ones are Pu-238, Pu-239, and Pu-240. Pu-238 has a half-life of 88 years, plutonium-239 has a half-life of 24,000, and plutonium-240 has a half-life 6,500 years.*

The half-life of a radioisotope describes how long it takes for half of the atoms in a given mass to decay. Perchlorate and Volatile Organic Compounds do not decay in the same way the radioactive elements do. However, perchlorate and volatile organic compounds can be degraded both naturally and using remediation technologies

Comment 14b:
Why only shallow testing 3 to 5 feet?

Response: *Please see response Comment 6.*

Comment 14c:
How do we trust a company that denied waste disposal, burns and meltdown to do a voluntary clean-up?

Response: *Please response to Comment #4e.*

Comment 14d:
Cost of individual tests? Cost of cancer prevention?

Response: *The proposed supplemental sampling and analysis includes analytical testing for perchlorate in soil and groundwater and volatile organic compounds in groundwater. Perchlorate testing costs about $50 to $100 per sample, depending on the analytical method used and the requested turn around time. Testing for volatile organic compound costs about $75 to $150 per sample. The difference in cost primarily depends on the requested turn around time.*

Comments from Ms. Linda West, 23505 Schoenborn Street, West Hills, CA 91304

Comment 15:
Can I get tests done for alpha, beta and gamma radiation on my property?

Response: *DTSC does not plan to conduct off-site sampling for radiation at this time. The need for any additional off-site radiological sampling will be based on an evaluation of on-site data, as compared to regional background radiation levels.*

Comments from Dr. Sheldon Plotkin

Comment 16a:
Test at Justice Street Elementary School

Response**:** *Please see response to 11a.*

Comment 16b:
Radionuclides – how is background being established?

Response**:** *The preliminary results obtained from the survey will be statistically evaluated and compared to existing off-site radiological data collected as part of the SSFL off-site sampling program. Off-site soil samples were collected from parks and canyons located between 1.5- and 12-miles from the Centex site. Following this evaluation of preliminary Centex Site data, any data gaps will be identified and*

additional sampling locations, if necessary, will be proposed in a detailed sampling and analysis plan that will be made available to the public for comment.

Comment 16c:
Will the public have the opportunity to review and comment on the sampling plan for the radioactive contamination? – request for a 30-day comment period
Make sure sampling is extensive enough to fully delineate the site

Response: *If additional sampling is required, DTSC will announce a 30-day public comment period for the Radiological Sampling Plan.*

Comment from Mr. Merlin Stone, 24303 Woolsey Canyon Road, #112, West Hills, CA 91304

Comment 17:
Being heavy water (D_20) is used in the production of jet and rocket fuel, what is being done to determine if heavy water is also polluting the area?

Response: *Groundwater samples will be analyzed for heavy water (D_2O).*

Comments from Ms. Elizabeth Crawford.

Comment 18a:
Police Report regarding environmental crimes on the property. Centex provide a copy of the report made to the police. Is there an investigation being conducted?

Response**:** *Please see response to Comment 3b.*

Comment 18b:
What about the investigation of the barrels? Test for heavy metals and specific radionuclides.

Response: *As DTSC agreed to in the March 7, 2006 Public Meeting, soils from the barrel area will be sampled for metals and specific radionuclides.*

Comment 18c:
Will sampling be done deeper if contamination is found at 30 feet?

Response: *Yes. The investigation will continue until the vertical and lateral extent of contamination is delineated***.**

Comment 18d:
Test the soil in the area surrounding the barrels for specific radionuclides.

Response: *Soils from the barrel area will be sampled for metals and specific radionuclides. Please see response to Comment 18b.*

Comment 18e:
Environmental monitoring – permanent future monitoring, quarterly reporting, after rain events, etc.

Response: *The future development may require water monitoring to determine whether perchlorate is washed down Dayton Canyon in surface water. Currently, surface water at the top of Dayton Canyon is monitored as part of the Boeing NPDES permit administered by the Regional Water Quality Control Board (RWQCB). Monitoring at point HV-2 tests whether surface water contains contaminants as it leaves the Santa Susana Field Lab. Collecting and testing water at HV-2 will continue after the site is developed. Recent and current analytical testing at HV-2 has indicated that the surface water leaving the Boeing site has low perchlorate concentrations. However, very high perchlorate concentrations have been detected in soil within lower Dayton Canyon Creek, so if the perchlorate was deposited by surface water flow, then it appears that a perchlorate source may exist downstream of HV-2. Consequently, it will be necessary to monitor surface water downstream of HV-2, near the upstream extent of the proposed development, in addition to the ongoing monitoring at HV-2.*

Details regarding sampling intervals, reporting intervals and sample collection techniques have not been decided. Sampling at HV-2 is conducted when ever it rains enough to cause surface flow, DTSC anticipates that a similar approach would be used when the future development is built, and that the monitoring plan, once instituted, will be periodically reviewed and be subject to amendment.

Comment 18f:
What type of disclosure will be required for future homebuyers?

Response: *Please see response to 12b.*

Comments from Ms. Bonnie Klea

Comment 19a:
Test Justice Street Elementary School and Orcutt Park. Also test for TCE at these locations.

Response: *In addition to our response to Comment 11a, please note that at this time based on sampling results from the Centex Homes property, DTSC does not plan to sample these properties for TCE or other chemicals.*

Comment 19b:
How deep was perchlorate detected? (at SSFL?) What happened to the deeper perchlorate?

Response: *Perchlorate was detected at a maximum depth of 18 feet in soil, where the soil is the deepest and is in contact with bedrock. Perchlorate is present in groundwater*

wells in the areas of SSFL where perchlorate was detected in soil. This indicates that perchlorate at SSFL has migrated through soil and bedrock and into groundwater. Based on the distribution of perchlorate in wells at SSFL it appears that the perchlorate in groundwater is migrating to the west and possibly to the south of the source areas. The vertical extent of perchlorate in groundwater has not been delineated.

Comment 19c:
A well for permanent testing in the shallow and deep aquifer.

Response: *Please see response to Comment 2d and 20b.*

Comment 19d:
Please follow-up on the investigation of possible environmental crimes on the property.

Response: *Please see response to Comment 3b.*

Comment 19e
What is background? (radionuclides)

Response: *Background radiation is dependent upon the geology and background locations should be as similar as possible to the geology associated with the Centex site. Consequently, as discussed in Response to Comment 1a, Centex site radiological data will be compared to existing background data collected from similar locations 1.5- to 12-miles from the Centex site.*

Comment 19f
What is the extent of testing to be done for Cesium 137?

Response: *The preliminary results obtained from the survey will be statistically evaluated and compared to existing off-site radiological data collected as part of the SSFL off-site sampling program. Off-site soil samples were collected from parks and canyons located between 1.5- and 12-miles from the Centex site. Following this evaluation of preliminary Centex Site data, any data gaps will be identified and additional sampling locations, if necessary, will be proposed in a detailed sampling and analysis plan that will be made available to the public for comment.*

Comment 19g
Test Orcutt Ranch for additional chemicals besides perchlorate.

Response: *Please see response to Comment 19a.*

Comments from Mr. Christer Loftenius, Environmental Assessment Coordinator, Office of Environmental Health and Safety, Los Angeles Unified School District, 333 South Beaudry Avenue 20th floor, Los Angeles, CA, 90017

Comment 20a:

The sampling plan does not address potential contamination in Dayton Canyon to the west and the possibility that the source of the perchlorate could be located at the head of Dayton Canyon within the Rocketdyne facility. Even though the westernmost sampling locations had confirmed detections of perchlorate, it appears that no sampling will be conducted upstream Dayton Canyon. We recommend that additional sampling be conducted upstream to the west to either confirm or deny the possibility that the perchlorate originated from the Rocketdyne facility. Ii is also recommended that the Centex Home project team and the Rocketdyne project team coordinate efforts to identify the source for the perchlorate in Dayton Creek and to identify any constituents of potential concern that may have entered Dayton Creek surface water and groundwater from the Rocketdyne facility.

Response: *The objective of this limited investigation is to evaluate the distribution of perchlorate that was previously detected in the lower portion of the Dayton Canyon Creek Bed. Analytical results from soil samples collected after a rainstorm in January 2006, have indicated that the perchlorate detected in the creek bed appears to have been redistributed due to the rain. The objective of the proposed scope of work is limited to the evaluation the distribution, the lateral and vertical extent, of perchlorate in soil after the rainy season.*

Soil sampling has been conducted upstream of the perchlorate detections in the lower portions of Dayton creek. Soil samples have been collected along the length of Dayton Creek all the way up to the Rockedyne facility. Soil sampling efforts have been discussed with the DTSC-SSFL project team.

Comment 20b:
Pending the results from the sampling along Dayton Creek on the Orcutt Ranch property, further sampling downstream Dayton Creek is recommended, especially if the on-going investigation identifies the source of the perchlorate to predate the construction of the concrete channel. Sampling under the concrete may be warranted if perchlorate releases have occurred prior to the construction of the concrete channel.

Because of the high solubility of perchlorate compounds, the likely destination for perchlorate in the environment is groundwater. Therefore a long-term, quarterly ground water monitoring program should be implemented to follow long term trends of perchlorate and volatile organic compounds in the groundwater. We recommend that instead of five temporary wells being installed that permanent groundwater monitoring wells be installed instead. These wells should be installed in accordance with federal, State, and local regulations and guidelines. For instance, upon installation at least 72 hrs should elapse prior to well development. After the wells are developed, preferably to a turbidity less than 10 nephelometric turbidity units, 48 hours should elapse before the wells are sampled. Sampling should follow U.S. EPA, DTSC, and Regional Water Quality Control Board standards and guidelines. We also recommend that a sixth well be installed upstream at the western boundary of the Centex Homes property to determine whether contaminants are entering the site in the groundwater from an upstream source.

Response: *The vertical extent of perchlorate in the lower Dayton Canyon Creek area has not been delineated. The strategy of the proposed investigation includes delineating the extent of perchlorate in the lower Dayton Canyon Creek area to determine if it has migrated to groundwater, and collecting groundwater samples to evaluate if perchlorate is present in groundwater. If perchlorate is detected in groundwater, it may be due to the migration of the high concentrations of perchlorate previously detected in lower Dayton Canyon Creek, or it may be due to migration from an off-site source such as the Rockedyne facility.*

If the distribution of perchlorate in soil indicates that the perchlorate from the lower Dayton Canyon Creek has migrated to groundwater, and perchlorate is detected in groundwater, then an investigation will be performed to fully delineate the extent of perchlorate in soil and groundwater. In this case numerous wells will be installed to properly evaluate groundwater flow direction as well as monitor perchlorate concentrations and distribution within groundwater. The results from the proposed supplemental sampling plan would be used to plan well installation and sampling locations.

If the delineation of perchlorate in soil indicates that perchlorate from the lower Dayton Canyon Creek area has not migrated through soil into groundwater, and perchlorate is detected in groundwater, then an investigation into the occurrence of perchlorate in groundwater will need to be conducted and coordinated as part of the overall efforts to evaluate perchlorate in groundwater around the Rockedyne facility.

If the delineation of perchlorate in soil indicates that perchlorate from the lower Dayton Canyon Creek area has not migrated through soil into groundwater, and perchlorate is not detected in groundwater, then there is no reason to perform additional groundwater investigation in the lower Dayton Canyon Creek area.